

REMARKS

Applicants appreciate the thorough examination of the application that is reflected in the Final Office Action dated September 05, 2006.

In the Final Office Action dated September 05, 2006, claims 1-17 were rejected.

This response amends claims 1, 7-8, 13, and 15-17. Support for these amendments appears throughout the specification and drawings, for example, at paragraphs [0023], [0027] and [0030].

Claims 1-17 (17 total claims; 7 independent claims) remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

**Preliminary Issues**

Prior to discussing any substantive issues, Applicants would like to discuss certain claim amendments made in this application.

In the Final Office Action dated September 05, 2006, the Office notes that “a trailer may have an infinite number of longitudinal axis. In this case, Applicant assumes that it is defined as the ‘long’ direction, e.g., direction of travel, of a trailer but claims 8, 13-14 & 17 do not further define.”

To expedite the prosecution of this application, Applicants amend claims 1, 7-8, 13, and 15-17, consistent with the description at paragraphs [0023] and [0027] of the present application, to further define the longitudinal axis. For example, Applicants amend the preamble of claim 8 to recite “a transport having a longitudinal axis which extends along a lengthwise dimension of the transport.” The term “lengthwise dimension” refers to the “long” dimension of any object, which in claim 8 is the “transport.” Therefore, Applicants submit that the “longitudinal axis,” recited in claims 8, 13-14 and 17, is clearly defined.

Moreover, Applicants note that the body of claim 8 recites “a trolley portion configured to move laterally in a direction substantially parallel to the longitudinal axis of the transport.” As such, the body of claim 8 depends on the preamble of claim 8, and the recitation in the preamble of claim 8 should be given patentable weight.

**Claim Rejections Under 35 U.S.C. §102**

Claims 13-14 and 17 are rejected under 35 U.S.C. §102(b) as being anticipated by Williams, USPN 3,067,884 (hereinafter “Williams”). Applicants respectfully traverse these rejections for at least the following reasons.

**Claims 13 and 17**

Claim 13 relates to a chock assembly for supporting a rocket engine on a transport having a longitudinal axis which extends along a lengthwise dimension of the transport. Claim 13 recites:

- a trolley portion configured to mate with the transport and to interact with the transport to move laterally in a direction substantially parallel to the longitudinal axis of the transport during elevation of the rocket engine;
- a chock having a curved portion configured to receive the rocket engine; and
- a hinge portion having a bearing assembly configured to pivotably couple the chock to the trolley portion such that the chock rotates about a pivot point on the trolley portion in response to a force applied against the chock by the rocket engine when one end of the rocket engine is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added.)

Claim 17 relates to a chock assembly for supporting an object on a transport having a longitudinal axis which extends along a lengthwise dimension of the transport. Claim 17 recites:

- a trolley portion configured to mate with the transport and to interact with the transport to move laterally in a direction substantially parallel to the longitudinal axis;
- a chock having a support portion configured to receive the object; and
- a hinge portion having a bearing assembly configured to pivotably couple the chock to the trolley portion such that the chock rotates about a pivot point on the trolley portion in response to a force applied against the chock by the object when one end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added)

Applicants submit that Williams does not teach all of the limitations of independent claims 13 and 17. For example, Applicants submit that the Williams reference fails to disclose that “the chock rotates about a pivot point on the trolley portion in response to a force applied

against the chock by the object when one end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 17.

Williams teaches an “ordnance handling vehicle for transporting and supporting missile sections or components.” See Williams, C1/L15-17. The missile holding feature includes an “adapter 81, compris[ing] a substantially U-shaped member 82 in the form of a relatively narrow band having flanges 83 extending outwardly therefrom in registration with complementary flanges 84 formed on a cap 85 and secured together by bolts or the like 86.” See Williams, C4/L32-36. “The adapte[r] 81 is movably supported between the arms 79 by stub shafts 92 and 93.” See Williams, C4/L44-66.

However, Applicants respectfully submit that the U-Shaped member 82 (shown in FIG. 9 of Williams) does not “rotate about a pivot point” on the mobile cart 10 “in response to a force applied against” the U-Shaped member 82 by a missile part when it is elevated. As such, Applicants submit that Williams does not disclose that “the chock rotates about a pivot point on the trolley portion in response to a force applied against the chock by the object when one end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 17.

For at least the above reasons, Williams does not disclose each and every element of independent claims 13 and 17, and therefore does not anticipate claims 13 and 17. For at least the same reasons, Williams does not anticipate claim 14, which depends from claim 13.

Accordingly, for at least the reasons stated above, Applicants request the withdrawal of the §102 rejection of claims 13-14 and 17.

**Claim Rejections Under 35 U.S.C. §103**

Claims 1-12 and 15-16 are once again rejected under 35 U.S.C. §103(a) as being unpatentable over Ellinthorpe, USPN 5,924,648 (hereinafter “Ellinthorpe”), in view of Cooper, USPN 3,970,295 (hereinafter “Cooper”). Applicants respectfully traverse these rejections for at least the following reasons.

**Claims 1 and 15**

Claim 1 relates to a rocket engine transport. Claim 1 recites:

a trailer having a long axis which extends along a lengthwise dimension of the trailer;

a tail support member coupled to the trailer and having a notch configured to receive a pin affixed near a first end of the rocket engine; and

a chock assembly comprising a chock pivotably coupled to a trolley, wherein the chock is configured to accept the rocket engine, wherein the trolley is configured to move laterally in a direction substantially parallel to the long axis, and wherein the chock is configured to pivot about a rotation axis that is substantially perpendicular to the long axis of the trailer in response to a force applied against the chock by the rocket engine as a second end of the rocket engine is elevated to a position that is substantially perpendicular to the long axis. (Emphasis added.)

Claim 15 relates to an object transport. Claim 15 recites:

a trailer having a longitudinal axis which extends along a lengthwise dimension of the trailer;

a tail support member coupled to the trailer and having a notch configured to receive a pin attached near a first end of an object; and

a chock assembly comprising a chock and a trolley configured to move laterally in a direction substantially parallel to the longitudinal axis of the trailer, and wherein the chock is configured to accept the object and to pivot about a pivot point on the trolley about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added.)

*1. As noted in the previous response, Applicants respectfully submit that the cited references fail to teach or suggest “a tail support member coupled to the trailer and having a notch configured to receive a pin attached near a first end of an object,” as recited in claim 15.*

Applicants note that the Final Office Action dated September 05, 2006 did not respond to this argument which was previously presented in the response filed on June 30, 2006. As will be explained again below, the cited references fail to disclose this recitation for at least the following reasons.

Ellinthorpe teaches a “system for rapidly and readily upending/reclining an extraterrestrial vehicle for assembly, transport, storage and/or launching purposes.” See Ellinthorpe, C1/L67-C2/L2. More specifically, Ellinthorpe teaches a “bridge assembly ... of an open frame construction and includ[ing] cradle means to matingly receive an extraterrestrial vehicle” and “one or more straps ... thereby restricting movement of the extraterrestrial vehicle relative to the bridge assembly during upending/reclining procedures.” See Ellinthorpe, C3/L3-17. The Office asserts that the support member 50 and the laterally extending toe portion 52 constitute a “tail support member.” Even assuming for the sake of argument that this is true, nothing in the Ellinthorpe reference teaches that the support member 50 and the laterally extending toe portion 52 have “a notch configured to receive a pin attached near a first end of an object,” as recited in claim 15. Moreover, as shown in FIGS. 2B and 3B of Ellinthorpe, the bridge assembly 40 in Ellinthorpe does **not** include “a notch configured to receive a pin attached near a first end of an object,” as recited in claim 15.

Cooper teaches a “pipe fitting locator ... use[d] in supporting a perpendicular branch pipe fitting so that the fitting can be accurately positioned for welding to the side of a longitudinally extending main pipe.” See Cooper C2/L49-53. The pipe fitting locator includes a “rail-mounted truck.” See Cooper C2/L58. However, as shown in FIGS. 1 and 2 of the Cooper reference, the pipe fitting locator 10 does not include “a tail support member coupled to the trailer and having a notch configured to receive a pin attached near a first end of an object,” as recited in claim 15. Rather, the branch pipe 11 to be welded is “mounted to the mounting plate 20 as by temporary fasteners 86,” as shown in FIG. 2 of Cooper, **not** by a notch/pin structure as recited in claim 15. See Cooper, C5/L32-34.

For at least this reason Applicants submit that the rejection of claim 15 should be withdrawn.

**2. Applicants respectfully submit that the cited references also fail to teach or suggest a chock that is configured “to pivot about a pivot point on the trolley about a rotation”**

***axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 15.***

In rejecting claim 15, the Office Action dated September 05, 2006 concedes that Ellinthorpe does **not** disclose a trolley. Applicants agree and respectfully point out that FIGS. 2A-B of Ellinthorpe show a cradle member 44 that is integral to the frame of bridge assembly 40, and which is not configured to be rotatable about a trolley. In an attempt to meet these deficiencies of Ellinthorpe, the Office cites the Cooper reference.

In particular, the Office takes the position that: “Cooper provides a trolley 14 such that pipe can be precisely positioned and ‘held at an exact position lengthwise’ without restricting accessibility unduly during fitting. C1/L10-15. Therefore, it would have been obvious ...to modify the apparatus of Ellinthorpe to include a trolley, as per the teachings of Cooper, for precise positioning of long circular bodies in the lengthwise direction.” See page 3, lines 1-5 of the Final Office Action. The Office also asserts that “Ellinthorpe in view of Cooper is certainly capable of pivoting and movement.”

Applicants respectfully disagree for at least the following reasons.

Ellinthorpe is deficient for at least the reasons stated above.

As shown in FIG. 2 of the Cooper reference, the pipe fitting locator 10 does not include “a chock assembly comprising a chock and a trolley configured to move laterally in a direction substantially parallel to the longitudinal axis of the trailer, and wherein the chock is configured to accept the object and to pivot about a pivot point on the trolley about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 15.

Applicants note that in claim 15 the longitudinal axis is defined with respect to the trailer (i.e., “a trailer having a longitudinal axis which extends along a lengthwise dimension of the trailer” (Emphasis added.)), and that the trolley is “configured to move laterally in a direction substantially parallel to the longitudinal axis of the trailer.” Notably, the Cooper reference does not disclose a “trailer,” and therefore the rail mounted truck 14 does not “move

laterally in a direction substantially parallel to the longitudinal axis of the trailer,” as recited in claim 15.

Even assuming for sake of argument that there is some motivation to modify the bridge assembly 40 in Ellinthorpe to include the rail mounted truck 14 of the Cooper reference, this combination of references would fail to teach that a chock that is configured “to pivot about a pivot point on the trolley about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 15. Nothing in either cited reference would indicate that the apparatus of Ellinthorpe or Cooper are capable of functioning or being used in this manner since nothing in either of the cited references indicates that both lateral movement and pivoting of a chock assembly are possible, as claimed, given the configurations of the apparatus in those references.

For example, nothing in the Cooper reference discloses that the mounting plate 20 is configured to “pivot about a pivot point” on the rail mounted truck 14 “about a rotation axis that is substantially perpendicular to the longitudinal axis,” or that the branch pipe fitting 11 of the Cooper reference generates “a force applied against the” mounting plate 20 as a second end of the branch pipe fitting 11 “is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 15.

For at least these reasons, the pipe fitting locator 10 of the Cooper reference does not include “a chock assembly comprising a chock and a trolley configured to move laterally in a direction substantially parallel to the longitudinal axis of the trailer, and wherein the chock is configured to accept the object and to pivot about a pivot point on the trolley about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 15.

The cited references fail to disclose all the structural limitations of the claims. For at least this additional reason Applicants submit that the rejection of claim 15 should be withdrawn.

Accordingly, for at least the foregoing reasons, Applicants submit that claim 15 is patentable over the cited references. For reasons analogous to those discussed above,

Applicants submit that claim 1, and its dependent claims 2-6, are patentable over the cited references. In addition, Applicants submit that many of the dependent claims 2-6 are separately patentable since the cited references fail to teach recitations present in those claims.

**Claim 8**

Additionally, independent claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ellinthorpe in view of Cooper.

Claim 8 relates to a chock assembly for transporting a rocket engine on a transport having a longitudinal axis which extends along a lengthwise dimension of the transport. Claim 8 recites:

- a trolley portion configured to move laterally in a direction substantially parallel to the longitudinal axis of the transport;
- a chock having a curved portion configured to receive the rocket engine;
- and
- a hinge portion configured to pivotably couple the chock to the trolley portion such that the chock is free to rotate about an axis in response to a force applied against the chock by the rocket engine when one end of the rocket engine is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added.)

Applicants submit that the cited references fail to teach or suggest “a hinge portion configured to pivotably couple the chock to the trolley portion such that the chock is free to rotate about an axis in response to a force applied against the chock by the rocket engine when one end of the rocket engine is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 8. For at least this reason Applicants submit that the rejection of claim 8 should be withdrawn.

Claims 9-12 depend from independent claim 8. Accordingly, for at least the reasons discussed above with regard to claim 8, claims 9-12 patentable over Ellinthorpe in view of Cooper. In addition, Applicants submit that many of the dependent claims 9-12 are separately patentable since the cited references fail to teach recitations present in those claims.

**Claims 7 and 16**

Claim 7 relates to a rocket engine transport. Claim 7 recites:

- a trailer having a track running parallel to a longitudinal axis which extends along a lengthwise dimension of the trailer;



- a tail support member coupled to the trailer and having a notch configured to rotatably receive a pin affixed near a first end of a rocket engine; and
- a chock assembly comprising a chock, a trolley configured to move laterally in a direction substantially parallel to the longitudinal axis, a pair of bearing assemblies rotatably coupling the chock to the trolley, and a pair of cradle assemblies, each cradle assembly comprising a support bracket coupled to the chock and having a trunnion configured to interact with the bearing assembly, wherein the chock is configured to accept the rocket engine and to pivot on the trunnion about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the rocket engine as a second end of the rocket engine is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added.)

Claim 16 relates to an object transport. Claim 16 recites:

- a trailer having a track running parallel to a longitudinal axis which extends along a lengthwise dimension of the trailer;
- a tail support member coupled to the trailer and having a notch configured to rotatably receive a pin affixed near a first end of an object; and
- a chock assembly comprising a chock, a trolley configured to move laterally in a direction substantially parallel to the longitudinal axis of the trailer, a pair of bearing assemblies rotatably coupling the chock to the trolley, and a pair of cradle assemblies, each cradle assembly comprising a support bracket coupled to the chock and having a trunnion configured to interact with the bearing assembly, wherein the chock is configured to accept the object and to pivot about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis. (Emphasis added.)

For reasons analogous to those discussed above with respect to claim 15, Applicants submit that the cited references fail to teach or suggest a chock assembly which includes “a pair of bearing assemblies rotatably coupling the chock to the trolley, and a pair of cradle assemblies, each cradle assembly comprising a support bracket coupled to the chock and having a trunnion configured to interact with the bearing assembly, wherein the chock is configured to accept the object and to pivot about a rotation axis that is substantially perpendicular to the longitudinal axis in response to a force applied against the chock by the object as a second end of the object is elevated to a position that is substantially perpendicular to the longitudinal axis,” as recited in claim 16.

For at least this reason Applicants submit that claims 7 and 16 are also patentable over the cited references and that the rejection of claims 7 and 16 should be withdrawn.

In conclusion, for the reasons given above, all claims now presently in the application are believed allowable and such allowance is respectfully requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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